Flexible learning environments

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"The health benefits and impact on obesity in children and adolescents was … a compelling argument towards trialling a flexible learning space."

Term One of 2016 was coming to an end and my understanding of individual students needs and differentiating learning to suit them, was in full swing. The need for adapting my teaching strategies and providing opportunities for all students to be successful is something I take extremely seriously. The learning environment was something I had never spent as much time or focus on, and had not (at this point) realised the impact it had on learning. As I watched the same student attempt to engross herself in anything other than the task I had set, whilst another wriggled and fidgeted every time they were asked to sit either on the floor or at a desk, I realised that I could do one of 2 things; I could raise my voice and ask them to stop what they are doing before issuing a consequence OR I could make a change, by providing a learning environment for my students where their needs were being better met, whilst also encouraging involvement and engagement in their own learning.

This was the basis for my experimental change in Term 2, 2016 to adapt some of my seating and classroom organisation to a flexible approach.

I wanted to ensure everything I did was research based and aligned with best teaching practice. In a study composed by Dr Lanningham-Foster (Brekke-Sisk, 2006), focusing on NEAT (non-exercise activity thermogenesis) she recorded the impact of flexible learning spaces on student attention as described by a teacher of grades four and five.

> I noticed several major changes in my students once we implemented the more mobile classroom," says Rynearson. "There was less movement for movement's sake — fewer trips to the bathroom or water fountain. Students shifted their bodies and changed positions when they needed to in order to stay focused. And students were able to move themselves away from other students who might be distracting or bothering them. This led to much less bickering and fewer distractions from class work. Rynearson also applauded the increased amount of space available in a classroom without desks. (p. 5)

Sitting for long **periods** of time (more than 10 minutes) does not suit the functioning ability of all students, but it also has links to weight gain and health problems (Brekke-Sisk, 2006, p. 3).

Levine with associated researchers (Levine, et al., 2005, Levine & Kotz, 2005, Levine, 2015) says that research has linked sitting for long periods of time with a number of health concerns, including obesity and metabolic dysfunction. Kravitz (2009), claims that even if children exercise in the morning or evening, but sit the rest of the day at a desk, rarely getting up, they would be at risk of significant heart problems. McManus (2015) found that it was much better for children and adults to be in an environment that is active and mobile rather than sedentary. Further, it was found to be detrimental for students to sit for long periods of uninterrupted time. More recently Laskowski (2018) asserts,

> Research has linked sitting for long periods of time with a number of health concerns. They include obesity and a cluster of conditions — increased blood pressure, high blood sugar, excess body fat around the waist and abnormal cholesterol levels — that make up metabolic syndrome. Too much sitting overall and prolonged periods of sitting also seem to increase the risk of death from cardiovascular disease and cancer. (para. 1)

While I was not wanting to go as extreme as removing all chairs and traditional desks, I was interested in the notion of allowing opportunities for students to move whilst in the classroom. I also recognised that if increasing mobility in class is developed in a controlled and intentional manner that there is the protentional opportunity to alleviate the amount of distractions that I had previously experienced. The health benefits and impact on obesity in children and adolescents was also a compelling argument towards trialling a flexible learning space.

Brain research also confirms that physical activity – moving, stretching, and walking – can actually enhance the learning process. Jensen (1998), in

his article *Teaching with the Brain in Mind*, protests against the sedentary classroom style and suggests a better way to spend the long days in the classroom, not only for students, but for teachers. Teachers need to engage students in a greater variety of postures, including walking, lying down, moving, leaning against a wall or desk, perching, or even squatting. In 2000, Jensen said that physical activity enhances brain activity and memory retention.

It is important for teachers to find ways to increase student movement through the school day. The research in primary schools where increased movement through the day has been implemented, indicate learners' achievement and wellbeing are maximised (Barrett, Zhang, Moffatt, & Kobbacy, 2013).

Firstly, I was not willing to fork out thousands of dollars, to discover that flexible seating was unsuccessful, so I turned to Kmart and Gumtree. I purchased stools without backs and yoga balls to encourage core stabilisation and posture, "To perform well in an educational environment, kids need to strengthen their motor skills and core muscle to manipulate a writing instrument, control their eye movement to track words on a page, and calm their bodies so they can attend and focus on the instructions the teacher is giving" (Villaneda, 2016, para.7).

I also extended some of the table heights so that students were able to stand whilst completing their work. Cushions, bean bags and a coffee table were purchased for students to kneel or sit at and the room with varying work heights gave me even more floor space. Regular seating was still provided for students who preferred the traditional classroom setup and worked best in that setting. I spent in total $205 for this experiment.

When I first introduced the flexible seating to students, they were required to change positions after each lesson to provide them an opportunity to evaluate the seating in which they were most engaged, efficient and productive. It did not take long before students did not choose a seat based on who else was sitting there, but instead, because it was a space where they felt they could be successful. Students became aware of how they learned best and made sensible and positive decisions. A strategic and firm set of expectations is required to ensure the classroom continues to be a space of engagement and motivation. Students were aware that I was able to move them at any time because I care about them having the best learning opportunities.

My findings: *Engagement*

The specific student mentioned earlier who struggled to stay on task, was completing her work independently. The attention required to sit on the wobbling chair discouraged her from needing to fiddle and play. She still required refocusing at times but a significant improvement in her attention to given tasks was noted.

Other students chose the standing desks as an optimal working space during almost every activity. Prior to this they were always moving around my room finding it difficult to sit still and becoming easily distracted. It was noted that these students were the same ones who would be itching for Physical Education lessons and any opportunity to get outside for a game of soccer.

My findings: *Behaviour management*

I monitored the changes of my classroom and the impact on behaviour for the rest of Term 2 and happily continued my flexible classroom for the remainder of the year. I found I rarely spoke to students about using seats inappropriately, no more swinging on chairs. Students were working in a space optimal for their own learning and in most instances were motivated to achieve in class.

There will certainly be difficulties when making adjustments and it is important to note the importance of setting expectations and boundaries with a commitment to follow through.

For three years I had been providing my students with a one size fits all classroom, a classroom that looked very similar to one 50 years earlier, yet the world outside their classroom had shifted dramatically. My change to our classroom not only improved specific students engagement and attention whilst at their desk but it also provided opportunities for collaboration, co-operation and problem solving.

The flexible learning environment for my class was exactly the improvement my students needed to encourage them to re-engage in school. My experiment and findings led our school administration to support and implement a flexible learning space for all Stage 2 classrooms. TEACH

"It did not take long before students did not choose a seat based on who else was sitting there, but instead, because it was a space where they felt they could be successful."

References

Barrett, P., Zhang, Y., Moffatt, J., & Kobbacy, K. (2013). A holistic, multi-level analysis identifying the impact of classroom design on pupils' learning. *Building and Environment, 59*(Jan 2013), 678–689.

Brekke-Sisk, N. (2006). Standing room only in classroom of the future. *Mayo Alumni, 42*(3), 3-5.

Jensen, E. (1998). *Teaching with the brain in mind*. Alexandria, VA: Association for Supervision and Curriculum Development.

Jensen, E. (2000). *Learning with the body in mind: The scientific basis for energizers, movement, play, games, and physical education*. San Diego, CA: Brain Store.

Kravitz, L. (2009). *Sitting is hazardous to your health*. Retrieved from https://www.unm.edu/~lkravitz/Article folder/sittingUNM.html

Laskowski, E. R. (2018, May 8). *What are the risks of sitting too much? Expert answers: Healthy lifestyle adult health*. Retrieved from https://www.mayoclinic.org/healthy-lifestyle/adult-health/expert-answers/sitting/faq-20058005

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Levine, J. A., Lanningham-Foster, L. M., McCrady, S. K., Krizan, A. C., Olson, L. R., Kane, P. H., … Clark, M. M. (2005). Interindividual variation in posture allocation: Possible role in human obesity. *Science. 307*(5709), 584-6.

Levine, J. A., & Kotz, C. M. (2005, August). NEAT--non-exercise activity thermogenesis--egocentric & geocentric environmental factors vs. biological regulation. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/16026422

Levine, J. A. (2015). Sick of sitting. *Diabetologia, 58*(8), 1751–1758. doi: 10.1007/s00125-015-3624-6

McManus, A. M. (2007). Physical activity – a neat solution to an impending crisis. *Journal of Sports Science and Medicine, 6*(3), 368–373.

Villaneda, A. (2016, January 13). Why these core muscle exercises help prevent learning challenges in the classroom. Retrieved from http://ilslearningcorner.com/2015-11-why-these-core-muscle-exercises-help-prevent-learning-challenges-in-the-classroom/

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